



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,272	10/25/2001	Keimpe Jan Van Den Berg	AC02833US	4450

7590

08/26/2003

Joan M. McGillicuddy  
Akzo Nobel Inc.  
7 Livingstone Avenue  
Dobbs Ferry, NY 10522

EXAMINER

SERGEANT, RABON A

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/045,272

Applicant(s)

VAN DEN BERG ET AL.

Examiner

Rabon Sergent

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

Art Unit: 1711

1. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Within claims 1, 2, 13, and 14, applicants have failed to set forth a basis for the weight percent of alkylene oxide groups. It is noted that within claims 1 and 2, the weight percent is recited after reference to the polyurethane and within claims 13 and 14, the weight percent is recited after reference to the polyurethane dispersion; the polyurethane is not considered to be equivalent to the polyurethane dispersion.

Within claim 1, it is unclear what significance or limitation is to be attached to the use of "while ...". Is the alkylene oxide weight content conditional on the (meth)acryloyl functionality?

Within claim 5, it is unclear how "on solid" is to be interpreted.

Within claim 6, the use of the language, "obtainable", renders the claims indefinite, because one cannot determine from the language which compositions are "obtainable by" the recited process and which are not. Furthermore, the language, "dispersing groups", renders the claim indefinite, because the type of "dispersing" (medium in which dispersing is to occur) is unclear.

Within claim 7, it is unclear how the language denoted by "such as" is to further limit "isocyanate-reactive groups".

Art Unit: 1711

Within claims 7 and 8, it is unclear if the recited components are present in addition to the (meth)acryloyl polyurethane of claim 1 or if the recited compounds are used to produce the (meth)acryloyl polyurethane of claim 1.

Within claim 8, it is unclear what isocyanate-reactive groups are present on the polyurethane, since the polyurethane is only described as being (meth)acryloyl functional; (meth)acryloyl groups are not considered to be isocyanate-reactive.

Within claim 9, the language, "... according to claim 7, wherein either of preceding claims 7 and 8, ...", cannot be understood.

Within claims 11 and 12, it is unclear what steps are encompassed by the language, "causing" and "allowing".

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 1711

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 424705 further in view of Brindoepe et al. ('613) and CA 2,269,412.

The primary reference discloses aqueous coating compositions comprising (meth)acryloyl functional polyurethanes, wherein the polyurethanes further contain 5-25% by weight of an alkylene oxide segment. See page 5, lines 14-26. The position is taken that this disclosure meets applicants' claimed alkylene oxide group concentration. Additionally, the reference discloses and exemplifies the use of isocyanates and polyols having functionalities greater than two, which will yield polyurethanes having poly(meth)acryloyl functionality. Therefore, the reference is considered to disclose polyurethanes that meet applicants' requirement of having 2 to 40 (meth)acryloyl groups. The reference further discloses the use of reactive diluents and free radical initiators.

4. Though the primary reference discloses the use of free radical initiators, the reference fails to disclose the use of UV initiators and UV radiation to cure the coatings. However, the use of UV radiation to cure coatings containing ethylenically unsaturated groups was known at the time of invention. This position is supported by the teachings of Brindoepe et al. at column 4, lines 60+ and CA 2,269,412 (abstract). Therefore, the position is taken that it would have been obvious to utilize a known curing technique for ethylenically unsaturated compositions, such as the UV curing of the secondary references. Additionally, though the primary reference is silent


Art Unit: 1711

regarding the use of the coating as a clearcoat composition, the position is taken that it would have been obvious to utilize the composition as a clearcoat by deleting the pigment component of the coating. Lastly, with respect to claim 8, though the primary reference fails to disclose the addition of a polyisocyanate component to the (meth)acryloyl polyurethane, such addition was known at the time of invention as a means of improving the coatings. This position is supported by the teachings of CA 2,269,412 at page 3, lines 20-25. Therefore, it would have been obvious to add additional polyisocyanate to the composition of the primary reference, so as to arrive at the composition of claim 8.

5. The USPTO is participating in a search exchange pilot program with the European Patent Office (EPO). As part of the pilot program, the USPTO has received a copy of the Search Report prepared by the EPO on the counterpart EP application for which priority under 35 U.S.C. 119(a) is claimed. The references cited in the EPO Search Report have been considered by the examiner and have been listed on the PTO 1449 form. A copy of these references is not being furnished to applicant with this Office action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.

R. Sergent  
August 25, 2003

  
**RABON SERGENT**  
**PRIMARY EXAMINER**